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EXAMINER

VO, LILIAN

ART UNIT	PAPER NUMBER
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2127

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

4

Office Action Summary

Application No.

09/498,525

Applicant(s)

ELABD, HAMMAM

Examiner

Lilian Vo

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-- Th MAILING DATE of this communication appears on the cov r sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 15-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 1 – 14 are presented for examination.

Election/Restrictions

2. Applicant's election without traverse of Group I, claims 1 - 14 in Paper No. 4 is acknowledged.
3. Claims 15 – 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: algorithm 1, 2 and 3, on page 6, lines 3 – 5 and 7.

An appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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6. **Claim 3** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The term FoP is nowhere defined or described in the specification.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. **Claim 3** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation FoP, which is nowhere defined or described in the specification. For the purpose of the examination, the office will assume it is referring to FoIP. However, neither FoP nor FoIP is defined or described in the specification.

An appropriate correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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10. Claims 1 – 2 and 5 – 8 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art.

Regarding **claim 1**, applicant's admitted prior art discloses a system for providing parallel processing of data to a plurality of digital signal processors (DSPs), comprising:

means for transmitting communication data to a load management system from a CPU (specification page 5, lines 3 – 11);

means for selecting a digital signal processor (DSP) from a plurality of DSPs for processing the communication data (specification page 5, lines 7 – 11);

means for processing the communication data using the selected DSP (specification page 5, lines 7 – 11 and line 18 – page 6, line 8); and

means for transmitting the processed data back to the CPU and to a communication device (specification page 5, lines 7 – 11 and line 18 – page 6, line 8).

Regarding **claim 2**, applicant's admitted prior art discloses a system of claim 1, wherein the communication data is transmitted from a VoIP medium (specification page 2, lines 4 – 7).

Regarding **claim 5**, applicant's admitted prior art discloses a system of claim 1, wherein the communication data is transmitted from an encoder/decoder (specification page 5, lines 3 – 9).

Regarding **claim 6**, applicant's admitted prior art discloses a system of claim 1, wherein the communication data is transmitted from a broadband communication medium (specification page 2, lines 15 – 17, page 4, lines 7 – 10).

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Regarding **claim 7**, applicant's admitted prior art discloses a system of claim 1, wherein the communication data is transmitted from an image processing medium (specification page 2, lines 5 – 8, and 15 – 17)..

Regarding **claim 8**, applicant's admitted prior art discloses a system of claim 1, wherein the communication data is transmitted from a data modem (specification page 5, lines 4 – 5).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of MacMillan et al (US 6,278,707 B1, hereafter refer to MacMillan).

Regarding **claim 3**, although applicant's admitted prior art discloses a system of claim 1, except wherein the communication data is transmitted from a FoIP medium. Nevertheless, MacMillan discloses the communication data is transmitted from FOIP (col. 9, lines 45 – 54). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to applicant's admitted prior art for the capability of supporting a number of diverse applications (col. 9, lines 45 – 46).

Regarding **claim 4**, although applicant's admitted prior art discloses a system of claim 1, except wherein the communication data is transmitted from an IP to sonet medium.

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Nevertheless, MacMillan discloses the communication data is transmitted from an IP to sonnet medium in fig. 6 and col. 6, lines 22 – 30. Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to applicant's admitted prior art to provide the system with a connection in a variety of forms.

13. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Van Hook et al (US 6,342,892, hereafter referred to Van Hook).

Regarding **claim 9**, although applicant's admitted prior art discloses a system of claim 1, except the additional limitations as claimed. Nevertheless, Van Hook discloses the load management system comprises:

a plurality of direct memory access (DMA) devices having internal registers, a plurality of FIFOs, a plurality of state machines associated with the plurality of FIFOs, and a memory interface for interfacing the plurality of DMA devices with an external memory devices (fig. 6A, 40 and col. 17, lines 43 – 54 and col. 62, 34 – 51);

a plurality of status and controls registers coupled to the plurality of DMA devices (fig. 6a and col. 17, lines 43 – 54);

a CPU interface for interfacing the CPU with the plurality of status and control registers (fig. 6a and col. 17, lines 43 – 54); and

a DSP interface for interfacing the plurality of DSPs with the plurality of DMA devices (fig. 6A, 40 and col. 17, lines 43 – 54 and col. 62, 34 – 51).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate these hardware components in Van Hook to applicant's admitted prior art to enhance the system performance.

Regarding **claim 11**, applicant's admitted prior art (AAPA) discloses a system of claim 9 further comprising an external memory (Fig. 2), wherein the external memory is coupled to the plurality of DSPs through dedicated memory threads (fig. 2).

14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Van Hook et al (US 6,342,892, hereafter referred to Van Hook) and further in view of Honary et al (US Pat. Application publication 2003/00464459 A1, hereafter referred to Honary).

Regarding **claim 10**, although the combined applicant's admitted prior art (AAPA) and Van Hook teach a system of claim 9 and the DSP interface includes a program/data memory (applicant's admitted prior art, fig. 2 and Van Hook's fig. 5, 108a) except a ping-pong memory. Nevertheless, Honary discloses of a ping-pong memory in the abstract. Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate ping-pong memory to the combined references of AAPA and Van Hook to maximize the processing efficiency of the plurality of image data (paragraph 0009).

15. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Van Hook et al (US 6,342,892, hereafter referred to Van Hook) and further in view of Spencer et al (US 6,044,225, hereafter referred to Spencer).

Regarding **claim 12**, although the combined applicant's admitted prior art (AAPA) and Van Hook teach a system of claim 9 except wherein the CPU interface includes a routing MUX, wherein the routing MUX is coupled to the external memory device. Nevertheless, Spencer discloses a routing MUX is coupled to the external memory device in figs. 6 and 7. Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate these components to the combined references of AAPA and Van Hook to enhance the transmission of communication data.

Regarding **claim 14**, applicant's admitted prior art (AAPA) teach of external memory device in fig. 2. It would have been obvious for one of ordinary skill in the art, at the time of the invention was made to manage the memory in the device to ensure there is enough space for data processing.

16. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Van Hook et al (US 6,342,892, hereafter referred to Van Hook) and in view of Spencer et al (US 6,044,225, hereafter referred to Spencer) and further in view of Chauvel et al. (US Pat application publication 2002/0078319 A1, hereafter referred to Chauvel).

Regarding **claim 13**, although the combined applicant's admitted prior art (AAPA), Van Hook and Spencer teach a system of claim 12 except wherein the external memory device comprises a memory access controller array. Nevertheless, Chauvel discloses the external memory device comprises a memory access controller array in page 2 – 3, paragraph 0037. Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate the component as described in Chauvel to the combined

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references of AAPA, Van Hook and Spencer to provide management to memory access in the external memory device.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is (703) 305-7864.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Lilian Vo
Examiner
Art Unit 2127

lv
October 16, 2003


MAJID BANANKHAH
PRIMARY EXAMINER